



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/759,391	01/16/2004	Kishan Shenoï	SYMM1600-I	6684
26290 7590 03/04/2008 PATTERSON & SHERIDAN, L.L.P. 3040 POST OAK BOULEVARD SUITE 1500 HOUSTON, TX 77056			EXAMINER QURESHI, AFSAR M	
			ART UNIT 2616	PAPER NUMBER
			MAIL DATE 03/04/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/759,391	Applicant(s) SHENOI, KISHAN	
	Examiner Afsar M. Qureshi	Art Unit 2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-98 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-15, 18-46 and 49-61 is/are allowed.
- 6) ☒ Claim(s) 16, 17, 47, 48, 62-70 and 83-88 is/are rejected.
- 7) ☒ Claim(s) 71-82, 89-98 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

1. Claims 16,47,69,83 rejected under 35 U.S.C. 101 because the claimed invention is not supported by either an asserted utility or a well established utility.

The claimed invention is directed to a non statutory subject matter. Computer programs claimed as computer listings per se, i.e., the descriptions or expressions of the programs, are not physical "things". They are neither computer components nor statutory processes, as they are not "acts" being performed. Such claimed computer programs do not define any structural and functional interrelationships between The computer program and other claimed elements of a computer which permit the computer program's functionality to be realized. In contrast, a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality t be realized, and is thus statutory. See *LOWRY*, 32 F.3d at 1583-84, 32 USPQ2d at 1035.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 16,47,69,83 also rejected under 35 U.S.C. 112, first paragraph.

Specifically, since the claimed invention is not supported by either an asserted utility or a well established utility for the reasons set forth above, one skilled in the art clearly would not know how to use the claimed invention. Applicant is using a program product to realize claimed method steps.

3. Claims 17, 48, 70 and 84 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The machine readable media comprising a program is not clearly defined in the Disclosure.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 62-68 and 85-88 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wang et al. ('Wang' hereinafter), US 6,985,442 in view of Glover et al. ('Glover' hereinafter), US 5,379,297.

As to claims 62, 63, 68, 85 and 86. Wang discloses a network of interconnected edge (131, 141, etc.) and core routers (see Abstract and fig. 1) providing transmission bandwidth on single trunk, flow evaluation by dividing the flow into thin layers and assigning packet level operating on a single packet stream (see col. 5, lines 5-34).

As to claims 64 and 65. Wang discloses dynamically varying threshold based on level of congestion (see col. 9, lines 33-40).

As to claims 66 and 67. Wang discloses buffering packets using queues and giving weight (priority) to the buffered plurality of packets (see col. 3, lines 6-14 and col. 9, lines 11-40).

Wang, however, discloses discarding the packets when the backlogged packets exceed some threshold.

Wang does not disclose restricting packet size, at the first packet router, by segmenting the outbound packet.

Glover, in the same field of endeavor, teaches a multi-channel segmenting packets for transmitting over channels in ATM network and reassembling packets at the receiving end (figs. 1 and 2) using a second processor 103' (fig. 2). The cell unit 103 is a segmentation processing unit located at packet router [in ATM edge network often contain routers] segmenting packets for transmission of ATM path 108 (trunk) over an ATM network 1 to ATM path 109 (see col. 8, lines 29-37).

Wang is concerned with fair bandwidth sharing and buffering management conditions where packets are dropped based on comparison to the level threshold. One of ordinary skill in the art would readily realize that discarding a packet may not be advantageous. However, the technique of resizing packets for transmission using segmenting and re-segmenting techniques, used by Glover, is more advantageous since discarding packets, if carried too far, results in inefficient operation since the transmission tends to increase traffic in an already congested network. Therefore, it would have been obvious to one of ordinary skill in the art, at the time of invention, to be able to modify Wang by including cell unit segmentation and re-assembly units in the core routers, as suggested by Glover, in order to realize an efficient transmission in the context of congestion control, sought by Wang.

Allowable Subject Matter

5. Claims 1-15, 18-29, 30-46 and 49-61 are allowed over prior art of record.

6. Claims 71-82 and 89-98 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 1, 18, 30, 71 and 89 claim unique method steps of transmitting high-quality of service packet stream on the single inter-machine trunk using a high-quality of service *permanent virtual circuit*, and low quality of service packet stream on low-quality of service *permanent virtual circuit*.

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Qureshi et al. (US 6,980,517); Kim et al. (US 6,256,310).

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Afsar M. Qureshi whose telephone number is (571) 272 3178. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Field Lynn can be reached on (571) 272 2092. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for

Application/Control Number:
10/759,391
Art Unit: 2616

Page 7

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



AFSAR QURESHI
PRIMARY EXAMINER

2/13/2008